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1           52. (Previously presented) An apparatus according to claim  
2   50 including  
  
3   means at said service centers for storing documents available for  
4   sale, and  
  
5   means for printing and dispensing said documents in response to  
6   receipt of payment.

1           53. (Previously presented) An apparatus according to claim  
2   50 including means responsive to voice input for generating text.

REMARKS

Claims 24-46, 50 and 51 were rejected under §103(a) as being obvious over 6 487 599 to Smith et al in view of 4 955 066, Notenboom, or 5 109 433, Notenboom2, or 5 999 949, Crandall. These rejections are untenable for the following reasons.

Claims 24-46

The disclosure of the present application clearly describes a form of learning by the system of the present invention. This form of learning includes searching through the stored material and counting how frequently various phrases and sentences are used, and substitutes a short code identifying the phrase. (Page

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11, line 24 to page 12, line 4.) Furthermore, the system can run comparisons repeatedly, at chosen times or set intervals, to find identical sentences which can then be replaced by short codes.

This concept is claimed in Claim 24 at lines 7-11, i.e.,

"repeatedly and automatically reviewing the text content of output documents to identify phrases that are repeatedly used and which can be replaced by a shorter access code, thereby reducing the volume of unique data to be added to the output documents."

The prior art of record does not disclose this concept. It is known to conduct a review of a document at the outset of a compression process to find such redundancy, but there is no suggestion of repeatedly and automatically conducting such reviews or comparisons.

It was recognized in ¶8 of the Action that Smith does not teach repeatedly and automatically reviewing the content of output documents to identify content that is repeatedly used and which can be replaced by a shorter access code, thereby reducing the volume of unique data to be added to the output documents.

Regarding the Notenboom references, it was said in the Action that each of Notenboom and Notenboom2 teach reviewing the content of output documents to identify content that is repeatedly used and which can be replaced by a shorter access code, thereby reducing the volume of unique data to be added to the output documents. (Fig. 1, block 6; col. 1 lines 60-63; col. 3, lines 48-61 of Notenboom; and, in Notenboom2, Fig. 1, block 16; col. 1, lines 66-68; col. 3, lines 55-68.)

The Action did not say that either Notenboom nor Notenboom2 teach repeatedly and automatically reviewing the content of output

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documents to identify content that is repeatedly used and which can be replaced by a shorter access code, thereby reducing the volume of unique data to be added to the output documents. Thus, the rejection based on Smith and either Notenboom or Notenboom2 fails to make the claim language obvious under §103a.

It was said that, citing case law, "[I]t has been held that one of ordinary skill would recognize the benefits of repeating steps and performing them automatically," and that this language in Applicant's claims would therefore have been obvious.

It is submitted that this rejection is untenable for the following reasons.

A careful review of Notenboom and Notenboom2 reveals that they use an initial review of the text to see if there is anything repeated which can be replaced. This is only done once. For whatever reason, no further review is done either automatically nor manually, nor does the Action suggest that it is done.

#### Cited Case Law

As to the cited case law, it is not clear why *In re Harza*, 74 2F.2d 669, (CCPA, 1960) was cited. The opinion in *Harza* has nothing to do with repeating steps or performing them automatically. *Harza* involved an appeal of claims directed to a water stop or barrier designed to be positioned so that concrete or the like could be poured, in successive steps, on opposite sides of an elastic membrane having offset, specially shaped ribs. As the concrete is poured on the first side, the ribs on that side are immersed in the concrete. When the concrete is poured on the second side, the ribs on the second side are similarly immersed. When the concrete cures, shrinkage occurs and the masses of concrete separate, but

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the specially shaped ribs remain encased and connected to the respective masses.

The court considered an issue of duplication of parts which was said to have no patentable significance and concluded that some of the claims were properly rejected. It went on to find that other claims distinguished over the prior art and were improperly rejected. No issues involving repeating steps or performing them automatically were considered or decided by the court. *Harza* therefore appears to be quite irrelevant to the rejection and to the pending claims and will be hereinafter disregarded. If the Examiner regards this case as being somehow relevant, clarification is requested.

*In re Venner et al*, 262 F.2d 91 (CCPA, 1958) was also cited to support the proposition in the Action that, "[O]ne of ordinary skill in the art would recognize the benefits of repeating steps and performing them automatically." However, it is submitted that this case does not support that proposition, as stated, and that the proposition itself differs so significantly from the claim language that, even if the case supported the stated proposition, it would not support a valid rejection.

*Venner* deals with claims directed to an apparatus for molding a particular kind of pistons out of aluminum and magnesium alloys. The apparatus has two external horizontally moveable outer mold sections, a pair of internal horizontally displaceable side core sections, and a vertically acting middle core section which can be withdrawn by a fluid motor. The problem which is allegedly solved by the invention relates to the time of withdrawing that middle core section during cooling. It must be withdrawn at exactly the right time: if it is withdrawn too early, the material slumps, and

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if too late, there is excessive shrinkage.

Before the claimed invention, the middle core section was withdrawn by manually actuating the fluid motor when, in the judgment (or guesswork) of an operator, the cooling has progressed to just the right point. However, human error in operator judgment resulted in a high rate of rejections of pistons. Therefore, the claimed invention added time-controlled means to actuate the fluid motor. The time-controlled means was set to the period between completion of pouring of the metal in the mold and solidification of the metal therein.

The court found that the prior art included all of the apparatus except for the timer and solenoid which automatically actuates the [known] pressure valve system to move the inner core after a predetermined time had elapsed. The court stated, "[I]t is well settled that it is not 'invention' to broadly provide a mechanical or automatic means to replace manual activity *which has accomplished the same result*", citing *In re Rundell*, 18 CCPA 1290, 48 F 2d 958, 9 USPQ 220. The rejection of the claims was therefore upheld.

It is submitted that the language of this decision, as quoted above, clearly says that if an automatic means is simply substituted for manual activity which theretofore has accomplished the same result and the automatic means, then there is no patentability in providing the automatic means. The *Venner* opinion has nothing to say about repeatability.

However, the present invention presents a quite different situation from *Venner*. In the present case, the prior art does not disclose a system which provides for repeatedly reviewing the text

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content of output documents to identify phrases that are repeatedly used and which can be replaced by a shorter access code, whether that repeated reviewing is done manually or automatically. Thus, the automatic reviewing does not replace manual activity which has accomplished the same result, the *Venner* opinion is not controlling, and the combination of references therefore does not provide a basis for the rejection of claim 24. Accordingly, it is believed that this claim should now be held allowable.

Claims 25-46 are dependent on claim 24. Thus, although these claims may have features which also distinguish over the cited art, they should be held allowable with claim 24.

Smith et al and Crandall

As to the combination of Smith et al with Crandall, exactly the same situation applies. Crandall uses an initial review to find duplication of phrases or sentences, but there is no suggestion of repeatedly accomplishing such a review, either manually or automatically. Thus the combination of Smith et al with Crandall also fails as a proper basis for rejection of claims 24-46 under §103(a).

Claims 50 and 51

Claim 50 is independent and includes the same language referred to above regarding repeatedly and automatically reviewing the content of output documents to identify content that is repeatedly used. Accordingly, Claim 50 should be allowable for the same reasons as given above with reference to claims 24-46.

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Claim 51 is dependent on claim 50 and should be allowable with claim 50.

Claims 47 and 48

In ¶62 of the Action, claims 47 and 48 were rejected as being unpatentable over the combination of Smith in view of Notenboom, Notenboom2 or Crandall and further in view of Suzuki et al. Claims 47 and 48 are ultimately dependent on Claim 24 which should be allowable for the reasons discussed above. Suzuki does not show, nor was it alleged to show, repeatedly and automatically reviewing content of output documents. Thus, whatever else Suzuki may show, it does not contribute to a meaningful rejection of claims 47 and 48, and those claims should therefore be held allowable.

Claims 52 and 53

In ¶69 of the Action, claims 52 and 53 were rejected as being unpatentable over the combination of Smith in view of Notenboom, Notenboom2 or Crandall and further in view of Perry et al. Claims 52 and 53 are ultimately dependent on Claim 24 which should be allowable for the reasons discussed above. Perry does not show, nor was it alleged to show, repeatedly and automatically reviewing content of output documents. Thus, whatever else Perry may show, it does not contribute to a meaningful rejection of claims 52 and 53, and those claims should therefore be held allowable.

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CONCLUSIONS

For the reasons given herein, it is submitted that the claims now existing in this application are allowable over the art of record, considered singly or in any proper combination, and such action is respectfully requested.

Respectfully submitted,



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The process of using the system in accordance with the invention may begin with a determination of the types of correspondence to be handled in the system for a client. It is possible to handle a large variety of correspondence in this way, but for purposes of illustration, a simple form letter will be used. The form letter is created by or for a client and stored in a portion of the service center memory dedicated to that client. Dedication of a memory portion is considered desirable for security and privacy reasons. For that client, a list of recipients is also stored, each recipient being associated in memory with some form of categorizing identification.

The form letter will have an area into which an address can be inserted and may have other areas to be completed in accordance with instructions given at the time of preparation, e.g., an amount of money. To use the system, the client gives a sequence of instructions, which will be referred to herein as a storage access and compilation code, to a service center by telephone or by a computer link with the service center. For security and billing purposes, the storage access and compilation code includes an identification of the client. This directs computer 14 to seek a skeleton form letter or document compilation in the proper portion of the system memory. The storage access and compilation code also identifies the type of form letter to be used, chosen from those which have been stored for this specific client such as, for example, a bill; the recipient, from the client's stored list of recipients; and the amount of money to be charged, along with selections of stored phrases which may be applicable to the specific form letter; and finally, an "end" code telling the control computer that the instruction is finished. As will be recognized, the instruction can include a large number of recipients and amounts of money for each, but the single recipient case will be adequate for illustration.

Upon receipt of the end code, the control computer compiles the form letter and merges it with the address information and other information or selections made in the sequence, and then prints the letter and provides the printed letter to the mailing equipment or personnel. As mentioned above, the document output of the system can be in an electronic form rather than, or in addition to, a printed document. Thus, the document produced by the above process may be transmitted electronically by fax, for example, to those recipients who have the capability to receive a fax and for whom a fax telephone number is known or, for instance, by ASCII.

Of particular importance is the fact that the service center or centers used by a particular client in a specific situation are those closest to the recipient(s). Thus, one client in a single

center a short code identifying the phrase. This further reduces the material which must be transmitted and , as more is written and stored, less material need be transmitted. This recognizes the fact that most writers in a business context tend to write the same phrases over and over. Ultimately, many entire letters will fall into this category.

5 A notable advantage of the system is the ability to store at each service center involved in a specific communication link the text (in code) of a document. Thus, if a contract is being negotiated by two parties who are at distant points and are using the service center system, each paragraph or clause of the document being negotiated can be identified in a customary manner by letters and numbers and then only the changed part need be transmitted. This can be  
10 provided by automatic means. However, the full document can be provided to each party with the changes incorporated. This provides a very great saving over the conventional process of sending the entire document, typically by e-mail or fax, each time a portion thereof is changed. Although the "paperless" office has been predicted for years, it has yet to be realized, and although the demise of the fax machine has been predicted because of the advent of e-mail and  
15 related electronic techniques, it is likely that faxes will still be in use for years to come, lately also increasingly for advertising purposes. Also, it is possible to store and process standard graphics in the same manner as the stored logo or text and furthermore to create graphics.

For record keeping purposes, it is also possible to store each merged document which has been sent and to relate each such document with the individual recipient's file. Generally, this  
20 need not be done on a real-time basis, so long as the document reaches the recipient's file in a reasonable time. The document can be created and sent to the file either electronically, by fax or on paper, depending on how the records for that client are kept. However, in addition to the above, it is desirable for the client to be able to request confirmation and time of delivery. Depending on the delivery technique which is being used, the service center can easily provide an  
25 automatically generated confirmation of the time when a document, e-mail, fax or data compilation, or sets of them, was sent from the service center and/or notification of delivery. The client can also print a record of what is sent and the service center system can provide a monthly summary to reduce transmissions.

30 Using the capabilities of the system described above, it is possible to introduce a new system for maintaining control of all documents sent or received through the system. As a first

A data transmission speed increase for the unique data in a learning mode can be achieved in the following way.

5 The sender, having stored all transmitted letters, notes, etc. could while creating a document by menu have the system immediately or at times or at set intervals run comparison checks on any of the transmitted unique (variable) sentences transmitted in the past. The sender could, for instance, have several sentences which are identical, or nearly so, transferred to the service center with an automatic access code, usable within subsequent compilation processes, this code being identical to the one correlated with the selected sentence of his file. Of course, the system, when searching for identical sentences could also accept similar sentences (with one  
10 or several words to be deleted, changed or added) for inclusion in the service center storage for that sender. The system could be instructed to run this part fully automatically and/or include human intervention to check, also preventing the storage of unwanted sentences, for whatever reason.

15 Using this approach, the system, in a learning mode, will permit less and less data to be transmitted, eventually reducing it to an absolute minimum. Of course, this approach is also usable directly from user to user, as a stand-alone system.

The foregoing sequence of events is based on the assumption that the computer output being sent will be directed to a rather large number of recipients, i.e., more than just two or three, but it is also quite possible to use the system to advantage with transmissions which are directed  
20 to one person, perhaps with information copies to two or three others. An example is a legal document of a type which is routinely sent in a particular type of litigation. For documents of this type, standard paragraphs and sentences are stored in the client's storage area along with a framework document, such as the basic form for a complaint, into which appropriate paragraphs can be inserted. For preparation purposes, it is desirable for the client to be able to access the  
25 stored document components so that the stored paragraphs and sentences can be reviewed and selected. Alternatively, the stored material can also be stored in the client's computer system for review and identification of the components to be used, permitting the client to then construct the code string for transmission to the service center.

30 In any such document, a signature block is desirable and can be included using digital signatures such as those developed for use in other forms of electronic document transmission. A facsimile signature can also be printed on the document.